

CURRICULUM VITAE
Susan M. Swensen

Department of Biology & Environmental Studies Program
Ithaca College, 953 Danby Road, Ithaca, NY 14850
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Education:

Ph.D., Plant Physiology and Genetics, 1992, University of Tennessee, Knoxville, TN
M.S., Botany, 1988, University of Tennessee, Knoxville, TN
B.A., Biology, 1985, Grinnell College, Grinnell, IA

Professional Experience:

2008-present **Associate Professor and Chair**, Department of Biology

2002-2008 **Associate Professor**, Department of Biology
Courses taught: *Principles of Biology, Evolution, Power of Plants, Literature in Biology, Junior Honors Seminar*

1996-2002 **Assistant Professor**, Department of Biology, Ithaca College
Courses taught: *Principles of Biology, Evolution, Botany, Ethnobotany, Literature in Biology, Summer College for High School Sophomores, Junior Honors Seminar*

1995-1996 **Instructor**, Department of Biology, Ithaca College
Courses: *Introductory Biology, Genetics*

1993-1995 **NSF Postdoctoral Fellow**; molecular systematics, Indiana University
(Advisor: Dr. Loren Rieseberg); Courses taught: *Ecology and Evolution* (guest lecturer)

1994 **Visiting Scientist**, Royal Botanic Gardens, Kew, Jodrell Laboratory
(Host: Dr. Mark W. Chase)

1992-1993 **A. W. Mellon Postdoctoral Fellow**; molecular systematics
Rancho Santa Ana Botanic Garden (Advisor: Dr. Loren Rieseberg)
Courses taught: *Molecular Systematics and Evolution* (Graduate Level Seminar)

1991-1992 **Research Assistant**, University of Tennessee; actinorhizal molecular biology
(Advisor: Dr. Beth Mullin)

1986-1990 **Teaching Assistant**, Tennessee Governor's School for the Sciences, University of Tennessee. *Coordinator for Biology Summer Program for H.S. students*

1985-1991 **Teaching Assistant**, Department of Botany, University of Tennessee
Introductory Botany, Plant Physiology, Cell Biology, General Biology Labs

Grants and Research Experience:

2003-2005 **NSF C-RUI Grant**: Evolution of host use: phylogenetic analysis of *Blepharoneura* (Diptera: Tephritidae) and its hosts in the subtribe Guraniinae (Cucurbitaceae) (\$72,349).

2006 **Ithaca Fund Grants** (Green Roof Pilot Project; \$400, Sustainability Café; \$250)

2006 **Ithaca College Instructional Development Grant** (for attending The Teaching Professor Conference, May 2006)

2004 & 2005 **NSF REU Supplements** (\$10,088 and \$13,953)

- 1999-2002 **NSF RUI Grant:** Phylogenetic study of Begoniaceae (\$100,000) with M. Tebbitt (Brooklyn Botanic Garden)
- 1999-2000 **NSF REU Supplements** (\$15,000)
- 2000 **Ithaca College Summer Faculty Research Grant** (\$3,350)
- 1998-2000 **NSF Instrumentation Grant** (with Imre Tamas and Jack Bernard; \$45,360)
- 1998 **Ithaca College Academic Project Grant** (\$750)
- 1993-1997 **NSF Grant:** Phylogenetic study of Cucurbitaceae and Allies (\$160,000)
- 1996-1997 **NSF REU Supplements** (\$10,000).
- 1993-1994 **The Nature Conservancy:** Genetic analysis of endangered Santa Cruz Island Bush Mallow (\$5,000)

Awards:

- 1998, 2006 **H&S Dean's Merit Awards**
- 1992-1993 **Andrew W. Mellon Postdoctoral Fellowship**, Rancho Santa Ana Botanic Garden
- 1992 **Sigma Xi Travel Award** (University of Tennessee)
- 1990 Department of Botany Graduate Student Award for Outstanding Teaching (University of Tennessee)

Publications (undergraduate coauthors underlined):

- Swensen, S. 2009. Darwin's contributions affect everyday life. *The Ithacan*. February 12.
- Condon, M. D., S. J. Scheffer, M. L. Lewis, & S. M. Swensen. 2008. Hidden neotropical diversity: greater than the sum of its parts. *Science* 320: 928-931.
- Condon, M. D. C. Adams, D. Bann, K. Flaherty, J. Gammons, J. Johnson, M. L. Lewis, S. Marsteller, S. J. Scheffer, F. Serna, & S. M. Swensen. 2008. Uncovering tropical diversity: six sympatric cryptic species of *Blepharoneura* (Diptera: Tephritidae) in flowers of *Gurania spinulosa* (Cucurbitaceae) in eastern Ecuador. *Biological Journal of the Linnean Society* 93: 779-797.
- Swensen, S. M. & D. R. Benson. 2008. Evolution of actinorhizal host plants and *Frankia* endosymbioses. In: Pawlowski, K. and Newton, W. E., Eds. *Nitrogen-Fixing Actinorhizal Symbioses. Series: Nitrogen Fixation: Origins, Applications, and Research Progress.* Springer Life Sciences, Boston. 312 p. ISBN: 978-1-4020-3540-1
- Tebbitt, M. C., L. Lowe-Forrest, A. Santoriello, W. Clement, & S. M. Swensen. 2006. Phylogenetic relationships of Asian Begonia, with an emphasis on the evolution of rain-ballist and animal dispersal mechanisms in sections *Platycentrum*, *Sphenanthera*, and *Leprosae*. *Systematic Botany* 31(2): 327-336.
- Clement, W. L., M. C. Tebbitt, L. L. Forrest, J. E. Blair, L. Brouillet, T. Eriksson, & S. M. Swensen. 2004. Phylogenetic position and biogeography of *Hillebrandia sandwicensis* (Begoniaceae): a rare Hawaiian relict. *American Journal of Botany* 91(6): 905-917.
- Berry, A. M., T. M. Murphy, P. A. Okubara, K. R. Jacobsen, S. M. Swensen, & K. Pawlowski. 2004. Novel expression pattern of cytosolic glutamine synthetase in nitrogen-fixing root nodules of the actinorhizal host, *Datisca glomerata*. *Plant Physiology* 135: 1849-1862.

- Pawlowski, K., S. M. Swensen, C. Guan, A.-E. Hadri, A. M. Berry, & T. Bisseling. 2003. Distinct patterns of symbiosis-related gene expression in actinorhizal nodules from different plant families. *Molecular Plant-Microbe Interactions* 16(9): 796-807.
- Chase, M.W., S. Zmarzty, M. Delores Lledo, K.J. Wurdack, S. M. Swensen & M.J. Fay. 2002. When in doubt, put it in Flacourtiaceae: a molecular phylogenetic analysis based on plastid *rbcL* DNA sequences. *Kew Bulletin* 57 (1): 141-181
- Soltis, D. E., P.S. Soltis, M.W. Chase, M.E. Mort, D.C. Albach, M. Zanis, V. Savlainen, W.H. Hahn, S.B. Hoot, M.F. Fay, M. Axtell, S.M. Swensen, K.C. Nixon, & J.S. Farris. 2000. Angiosperm Phylogeny inferred from a combined data set of 18S rDNA, *rbcL*, and *atpB* sequences. *Botanical Journal of the Linnean Society* 133: 381-461.
- Fay, M. F., W. Alverson, A. Y. de Bruijn, S. M. Swensen, & M. W. Chase. 1998. Plastid *rbcL* sequences indicate a close affinity between *Diegodendron* and *Bixa*. *Taxon* 47: 43-50.
- Swensen, S. M., J. N. Luthi, & L. H. Rieseberg. 1998. Datisceae revisited: monophyly and the sequence of breeding system evolution. *Systematic Botany* 233(1): 157-169.
- Alverson, W. S., K. Karol, D. A. Baum, M. W. Chase, S. M. Swensen, R. McCourt, & K. J. Sytsma. 1997. Circumscription of the Malvales and relationships to other Rosidae: evidence from *rbcL* sequence data. *American Journal of Botany* 85: 876-887.
- Fay, M. F., S. M. Swensen, & M. W. Chase. 1997. Taxonomic affinities of *Medusagyne oppositifolia* (Medusagynaceae). *Kew Bulletin* 52 (1): 111-120.
- Soltis, D. E., P. S. Soltis, D. L. Nickrent, L. A. Johnson, W. J. Hahn, S. B. Hoot, J. A. Sweere, R. K. Kuzoff, K. A. Kron, M. W. Chase, S. M. Swensen, E. A. Zimmer, S-M Chaw, L. J. Gillespie, W. J. Kress, & K. J. Sytsma. 1997. Angiosperm phylogeny inferred from 18S rDNA sequences. *Annals of the Missouri Botanical Garden* 84: 1-49
- Swensen, S. M. & B. C. Mullin. 1997a. Phylogenetic relationships among actinorhizal plants: the impact of molecular systematics and implications for the evolution of actinorhizal symbioses. *Physiologia Plantarum* 99/4: 565-573.
- Swensen, S. M. & B.C. Mullin. 1997b. The impact of molecular systematics on hypotheses for the evolution of root nodule symbioses and implications for expanding symbioses to new host plant genera. *Plant and Soil* 194/1-2: 185-192
- Morton, C., M. W. Chase, K. Kron, & S. M. Swensen. 1996. A molecular evaluation of the monophyly of the order Ebenales based upon *rbcL* sequence data. *Systematic Botany* 21(4):567-586.
- Swensen, S. M. 1996. The evolution of actinorhizal symbioses: evidence for multiple origins of the symbiotic association. *American Journal of Botany* 83: 1503-1512.
- Soltis, D. E., P. S. Soltis, D. R. Morgan, S. M. Swensen, P. G. Martin, B. C. Mullin, & J. M. Dowd. 1995. Chloroplast gene sequence data suggest a single origin of symbiotic nitrogen fixation in angiosperms. *Proceedings of the National Academy of Science, USA* 92: 2647-2651.

- Swensen, S., G. J. Allan, M. Howe, W. J. Elisens, & L. H. Rieseberg. 1995. Genetic analysis of the endangered island endemic *Malacothamnus fasciculatus* var. *nesioticus*. *Conservation Biology* 9: 404-415.
- Rieseberg, L. & S. Swensen. 1994. Conservation genetics of endangered island plants. Chapter 12 in *Conservation Genetics: Case Histories From Nature*. J. C. Avise and J. L. Hamrick, Eds. Chapman and Hall, New York.
- Swensen, S. M., M. W. Chase, & B. C. Mullin. 1994. A phylogenetic analysis of the Datisceae based on nucleotide sequences from the chloroplast *rbcL* gene. *Systematic Botany* 19(1): 157-168.
- Chase, M. W., D. E. Soltis, R. G. Olmstead, D. Morgan, D. H. Les, B. D. Mishler, M. R. Duvall, R. A. Price, H. G. Hills, Y.-L. Qiu, K. A. Kron, J. H. Rettig, E. Conti, J. D. Palmer, J. R. Manhart, K. J. Sytsma, H. J. Michaels, W. J. Kress, K. G. Karol, W. D. Clark, M. Hedrén, B. S. Gaut, R. K. Jansen, K.-J. Kim, C. F. Wimpee, J. F. Smith, G. R. Furnier, S. H. Strauss, Q.-Y. Xiang, G. M. Plunkett, P. S. Soltis, S. M. Swensen, S. E. Williams, P. A. Gadek, C. J. Quinn, L. E. Eguiarte, E. Golenberg, G. H. Learn, Jr., S. W. Graham, S. C. H. Barrett, S. Dayanandan, and V. A. Albert. 1993. Phylogenetics of seed plants: an analysis of nucleotide sequences from the plastid gene *rbcl*. *Annals of the Missouri Botanical Garden* 80: 528-580.
- Swensen, S. M. 1992. A Phylogenetic Analysis of the Datisceae Based on DNA Sequences from the Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Gene. Ph.D. dissertation, University of Tennessee, Knoxville.
- Mullin, B. C., S. M. Swensen, and P. Goetting-Minesky. 1991. Hypotheses for the evolution of actinorhizal symbioses. *Nitrogen Fixation: Achievements and Objectives*. Gresshoff, Roth, Stacey, and Newton, Eds. Chapman and Hall, New York.
- Mullin, B.C., S. M. Swensen, P. Twigg and P. Goetting-Minesky. 1991. Application of molecular analyses to questions relating to the genetics, ecology and evolution of actinorhizal symbioses. In: *Biochemical and Genetic Analyses of Gene Expression in Plants and Bacteria*. P.M. Gresshoff, Ed. CRC Press, Baton Rouge.

Meeting Presentations:

(undergraduate coauthors are underlined; presenter listed first)

- Davis, P. and S. Swensen. 2008. Ithaca College's Greenhouse Gas Inventory for 2008. 12th Annual James J. Whalen Academic Symposium. Ithaca College, Ithaca, NY.
- Davis, P., Chesney, A., Hamilton, J. and S. Swensen. 2008. Ithaca College's greenhouse gas emissions inventory: a piece of the sustainability pie [poster]. Association for the Advancement for the Sustainability in Higher Education Biennial Conference and Expo. Raleigh, NC. Nov. 9-11. [poster]
- Condon, M. M. Lewis, S. Scheffer, S. Swensen. 2008. Diversity hidden in sex-changing vines. Annual Meeting of the Association of Tropical Biology, Paramaribo, Suriname, June 9-13.
- Carrion, D. and S. M. Swensen. 2008. How Low Can You Go? The Effects of Substrate Variation on Green Roof Plants. 22nd National Conference of Undergraduate Research, Salisbury University, Salisbury, MD, April 10-12.

- Brown, M. M., S. M. Swensen, J. G. Hamilton, E. Shapiro, and L. Walker. 2007. Exploring Positive Growth: The Sustainability Initiative at Ithaca College. Greening of the Campus VII. Ball State University, Muncie, IN. September 14-16. [poster]
- Swensen, S. M. & J. Hamilton. 2006. Broadening Participation in Sustainability. Annual Meeting of the Association for the Advancement of Sustainability in Higher Education (AAASHE). Arizona State University, Tempe, AZ. October 4-6.
- Rivard, R. & S. M. Swensen. 2006. A Study of CNS Computer Plug-load Usage. Eastern Colleges Science Conference (ECSC). Saint Joseph's University, Philadelphia, PA. April 22, 2006.
- Rivard, R. & S. M. Swensen. 2006. A Study of CNS Computer Plug-load Usage. James J. Whalen Academic Symposium, Ithaca College, April 3.
- Hylan, S. & S. M. Swensen. 2006. Greenhouse Gas Emissions Calculated for Ithaca College. James J. Whalen Academic Symposium, Ithaca College, April 3.
- Swensen, S. M. & J. Hamilton. 2005. Ithaca College's CNS Sustainability Group. Greening of the Campus VI. Ball State University, Muncie, IN. September 14-16. [poster]
- Bann, D., S. Swensen, S. Scheffer, M. Condon. 2005. Testing hypotheses of host use in *Blepharoneura* (Diptera: Tephritidae). Eastern Colleges Science Conference (ECSC) Central Connecticut State University, New Britain, C. April 8-9,.
- Walsh, D., M. Condon, S. Swensen. 2005. Evidence for allele sharing in the internal transcribed spacer of *Gurania* (Cucurbitaceae). Eastern Colleges Science Conference (ECSC) Central Connecticut State University, New Britain, CT. April 8-9.
- Santoriello, A., S. Swensen, B. Clark Joseph. 2005. Toward a Sustainable Campus, Part I: A Model of the Ithaca College CNS Building Footprint. James J. Whalen Academic Symposium. Ithaca College. April 6.
- Santoriello, A., M. Tebbitt, S. Swensen. 2004. Molecular phylogeny of Asian *Begonia*: effects of combining data from ndhF, ITS, and trnS-psbC. James J. Whalen Academic Symposium. Ithaca College. March 22.
- Clement, W.L., L. L. Forrest, and S. M. Swensen. 2001. Phylogenetic placement of *Hillebrandia sandwichensis* (Begoniaceae). Botany 2001 "Plants and People", Albuquerque, NM. August 12-16. [poster]
- Swensen, S.M., W.L. Clement, L.L. Forrest, and M.C. Tebbitt. 2001. *Hillebrandia sandwichensis*: Evolutionary relationships and biogeography. Botany 2001 Botany 2001 "Plants and People", Albuquerque, NM. August 12-16.
- Clement, W. L. and S. M. Swensen. 2001. Investigation of *Hillebrandia sandwichensis*: Evolutionary Placement in the Family Begoniaceae. National Conference on Undergraduate Research (NCUR), Lexington, KY. April 16-18.
- Ward, M. and S.M. Swensen. 2000. A phylogenetic analysis of American *Begonia* sections *Gireoudea* and *Pritzelia*. Rochester Academy of Sciences, Roberts Wesleyan College, Rochester, NY. November 4.

- Clement, W. L. & S. M. Swensen. 2000. Investigation of *Hillebrandia sandwichensis*: Evolutionary Placement in the Family Begoniaceae. Eastern States Science Conference (ECSC), Wagner College, Staten Island, New York. April.
- Clement, W. L. & S. M. Swensen. 2000. Cladistic Analysis: The Phylogenetic Approach to Understanding Evolution in Plants. CUR Undergraduate Research Posters on Capitol Hill. April. [poster]
- Welsh, H.M. & S.M. Swensen. 1999. Actinorhizal Plant Phylogeny Based on *atpB* and 18S DNA Sequences. Rochester Academy of Sciences, Finger Lakes Community College, Canandaigua, NY. November 6.
- Blair, J. E. & S. M. Swensen. 1999. Phylogeny and Biogeography of *Hillebrandia sandwichensis*. National Conference on Undergraduate Research (NCUR). April.
- Blair, J. E. & S. M. Swensen. 1998. Phylogeny and Biogeography of *Hillebrandia sandwichensis*. Eastern States Science Conference (ECSC), Niagara University, Niagara, NY. April.
- Axtell, M. J. & S. M. Swensen. 1998. Evolution of Actinorhizal Plants Inferred from *rbcL*, 18S rDNA, and *atpB* DNA sequences. 12th National Conference on Undergraduate Research (NCUR), Salisbury State University, Salisbury, MD. April.
- Swensen, S. M. & C. M. Walsh. 1997. A Molecular Phylogeny of Cucurbitaceae. 48th Annual Meeting of AIBS (American Society of Plant Taxonomists), Montreal, Quebec. August.
- Walsh, C. M. (S. M. Swensen). 1997. The Evolution of Cucurbitaceae: DNA Evidence. President's Academic Symposium, Ithaca College, Ithaca, NY. March.
- Chase, M. W., M. D. Lledo, M. B. Crespo, & Susan M. Swensen. 1996. When in doubt, put it in Flacourtiaceae: molecular systematics of Flacourtiaceae. American Journal of Botany 83:146 [abstract] 47th Annual Meeting of AIBS, Seattle, WA. August.
- Swensen, S. M., & M. W. Chase. 1995. Relationships of Theales sensu Cronquist from the Perspective of Cladistic Analyses of *rbcL* Sequence Data. 46th Annual Meeting of AIBS (American Society of Plant Taxonomists), San Diego, CA. August.
- Swensen, S. M., G. Allan, & L. H. Rieseberg. 1994. Genetic Analysis of the endangered island endemic *Malacothamnus fasciculatus* var. *nesioticus*. 45th Annual Meeting of AIBS (American Society of Plant Taxonomists), Knoxville, TN. August.
- Swensen, S. M. & B. C. Mullin. 1994. Was the ancestor of symbiotic actinorhizal plants nodulated? 45th Annual Meeting of AIBS (American Society of Plant Taxonomists), Knoxville, TN. August.
- Swensen, S. M., M. W. Chase, & B. C. Mullin. 1993. Phylogenetic Affinities of Datisceae. 44th Annual Meeting of AIBS (American Society of Plant Taxonomists), Ames, IA. August.
- Swensen, S. M. & B. C. Mullin. 1988. The Isolation and Characterization of a DNA Sequence from *Alnus glutinosa* that Hybridizes to a Globin Oligonucleotide Probe. American Society of Plant Physiologists (Southern Section), Blacksburg, VA. June.

Swensen, S. M. & B. C. Mullin. 1988. The Isolation and Characterization of a Truncated Globin Gene from *Alnus glutinosa*. 7th International Meeting on *Frankia* and Actinorhizal Plants, Storrs, CT. July.

Invited seminars and workshops:

Global Warming Teach-In (Ithaca College) “Ithaca College’s Plan to Achieve Carbon Neutrality” February 5, 2009. [with Beth Ellen Clark Joseph] *Note that this presentation was given three other times to the Ithaca College Community as part our work on the President’s Climate Commitment Committee.

Ithaca College Board of Trustees Buildings & Grounds Committee “Ithaca College’s Plan to Achieve Carbon Neutrality” October 23, 2008. [with Beth Ellen Clark Joseph]

Physics Department Colloquium (Ithaca College) “Discovering Biodiversity” September 23, 2008.

Sodexho Northeast Regional Meeting (Ithaca College) “The Quest for a Sustainable World” January 8, 2008.

Paleontological Research Institute’s Museum of the Earth (Ithaca). “Of Molecules & Mud: Using DNA to Trace the Evolution of Plants”. October 21, 2006.

Cornell College (Mount Vernon, Iowa), Biology Department. “Plants in Strange Places: Discovering Evolutionary History with Molecules (and mud)”. October 18, 2005.

Cornell College (Mount Vernon, Iowa) DIMENSIONS Program. “The Quest for a Sustainable World: What We Know; What We Can Do”. October 17, 2005.

Cornell University, Department of Plant Sciences. “Evolution of Nitrogen-Fixing Symbioses in Angiosperms: Actinorhizal Symbioses”. March 12, 1999.

University of Wisconsin, Milwaukee, Department of Biological Sciences. “ Evolution of Nitrogen-Fixing Symbioses in Angiosperms: Actinorhizal Symbioses”. November 20, 1998.

Université de Montréal, Institut de recherche en biologie végétale. “ Evolution of Nitrogen-Fixing Symbioses in Angiosperms: Actinorhizal Symbioses”. October 16, 1998.

Workshop: Randomly Amplified Polymorphic DNA (RAPD): Methods and Analysis. Sponsored by Botanical Society of America, 48th Annual Meeting of AIBS, Montréal, Québec.. 1997.

Oregon State University, Corvallis, Department of Crop and Soil Science. “Evolution of Actinorhizal Symbioses”. March 5, 1997.

University of California, Davis. 10th International Conference on *Frankia* and Actinorhizal Plants. “The Evolution of Actinorhizal Symbioses: Evidence from Phylogenetic Analysis of *rbcL* Genes and Morphology”. August 7, 1995.

Southern Illinois University, Carbondale, Department of Plant Biology. “The Evolution of Nitrogen-Fixing Symbioses in Flowering Plants: Actinorhizal Symbioses”. March 24, 1995.

Workshop: Randomly Amplified Polymorphic DNA (RAPD): Methods and Analysis. Sponsored by American Society of Plant Taxonomists, 46th Annual Meeting of AIBS, San Diego, CA. 1995.

Royal Botanic Gardens, Kew, Jodrell Laboratory. "Molecular Studies in Datisceae and Cucurbitaceae". May 20, 1994.

University of LaVerne Department of Biology, LaVerne California. "Molecular Systematics of Datisceae and Implications for Breeding System Evolution". September 8, 1993.

Rancho Santa Ana Botanic Garden Seminar Series, Claremont, CA. "Phylogenetic Affinities of the Datisceae Based on *rbcL* Sequence Analysis". October 7, 1992.

Professional Service:

Assistant Editor, Journal of the Torrey Botanical Society
Systematics & Evolution (2002-present)

NSF Program in Systematic Botany

Panel Member: Doctoral Dissertation Improvement Grants (January 1996)

Reviewer of Grant Proposals in Systematic & Population Biology (1993-present)

Manuscript reviewer for the following journals :

American Journal of Botany, Conservation Biology, Molecular Biology and Evolution, Molecular Ecology, Plant Phylogenetics and Evolution, Plant & Soil, Plant Biology, Systematic Botany, Theoretical & Applied Genetics

Professional Societies:

American Society of Plant Taxonomists

Botanical Society of America

Society of Systematic Biologists

National Center for Science Education